

### **REMARKS**

Claims 1-41 were pending at the time the Office Action was issued.

Claims 1-5 are currently amended.

No claims are presently canceled.

Therefore, claims 1-41 remain pending.

### **Claim Rejections under 35 U.S.C. § 101**

Claims 1-4 were rejected under 35 U.S.C. § 101 “because they are directed to non-statutory subject matter.” (Office Action, Page 2, Paragraph No. 2). Specifically, the Office Action asserts that claims 1-4 are non-statutory “because they recite system claims that comprise software embodiments that do not have the use of hardware computer.”

Claims 1-4 each are currently amended to recite “A computer-readable storage media storing instructions executable by a computing system for providing a programmable object model for an Extensible Markup Language (XML) capable application.” These amendments recite a physical object and do “have the use of a hardware computer.” Applicants respectfully submit that the amendments to claims 1-4 resolve the rejection under 35 U.S.C. § 101. Thus, claims 1-4 are now in condition for allowance under 35 U.S.C. § 101.

### **Rejections of Claims 1-4 under 35 U.S.C. § 103**

Claims 1-4 were rejected as being unpatentable over U.S. Patent Publication No. 2003/0145197 of Lee et al. (hereinafter “Lee”) in view of U.S. Patent No. 6,779,154 to Nussbaum et al. (hereinafter “Nussbaum”). Applicants respectfully traverse the rejections.

Applicants have amended claims 1-4 to clarify what the claims recite to further distinguish over the cited references.

Applicants respectfully submit that no reasonable person of ordinary skill in the art, at the time the invention was made, would have thought to combine the teachings of Lee with the teachings of Nussbaum to reach what is recited in claims 1-4. Lee describes “an apparatus and method for detecting an illegitimate change of web resources, in which an XML-type web page illegitimate change detecting information is inserted into a web page and the illegitimate change detecting information is verified in real time when the corresponding web page is inquired, thereby detecting the illegitimate change of the web page.” (Lee, Paragraph 0007, Lines 4-9). The “illegitimate change detecting information” includes “XML digital signatures” that are “based on a predetermined encryption algorithm.” (Lee, Paragraph 0008, Lines 20-23 of the right-hand column under Paragraph 0008). By contrast, Nussbaum “is directed to an *arrangement for defining an executable voice application* using extensible markup language (XML) documents that specify user interface operations, logic operations, and/or function operations.”

Respectfully, with Lee being directed to providing security for a web resource and Nussbaum being directed to an executable voice application, no reasonable person with knowledge of Lee would have sought out Nussbaum to overcome the acknowledged shortcomings of Lee in teaching what is recited by the claims. These references may each have been recovered in a Boolean search of U.S. patent documents made in hindsight with knowledge of the claimed limitations. Otherwise, applicants submit that no reasonable person would have

combined these references. Respectfully, this combination fails to present a *prima facie* obviousness rejection.

Nonetheless, if for the sake of argument, one would have somehow combined these references, the references neither alone nor in combination teach all of the limitations of the claims.

Claim 1 is patentable over the cited references for at least two reasons. Claim 1, as amended, is reproduced below for the convenience of the Examiner:

1. (Currently Amended) A computer-readable storage media storing instructions executable by a computing system for providing a programmable object model for an Extensible Markup Language (XML) capable application, comprising:

an application programming interface for allowing a user to programmatically access the functionality of a software application capable of applying XML functionality to a document; [[:]] the application programming interface comprising:

a message call for inserting an XML element into a location within the document; and

a schema validation object configured to access an XML schema associated with content of the document and apply the XML schema to the XML element to evaluate content of the XML element and determine if the content of the XML element is valid according to the XML schema; and

a message interface the application programming interface-operative to receive a return value indicating when the XML element is not valid according to the XML schema and present a message to the user through the software application indicating the content of the XML element is not valid according to the XML schema from the application responsive inserting the XML element into the location within the document.

First, the cited references fail to teach or suggest a “schema validation object configured to access an XML schema associated with the content of the document and apply the XML schema to the XML element to evaluate content of the XML element and determine if content of the element is valid according to the XML schema.” Respectfully, nothing in the cited passages of the references describes “a schema validation object” or its operations as recited in claim 1.

For this reason alone, the cited references fail to teach all of the limitations of claim 1 and thus fail to support the rejection under 35 U.S.C. § 103(a).

Second, the cited references fail to teach or suggest a “a message interface operative to receive a return value indicating when the XML element is not valid according to the XML schema and present a message to the user through the software application indicating the content of the XML element is not valid according to the XML schema.” Again, nothing in the cited passages or in any other parts of the references is there support for a message interface to report to a user whether an XML element is valid.” Thus, for this additional reason, the cited references fail to teach all of the limitations of claim 1 and thus fail to support the rejection under 35 U.S.C. § 103(a). Applicants respectfully submit that the rejection under 35 U.S.C. § 103(a) must be withdrawn against claim 1, and that claim 1 is in condition for allowance.

With regard to claims 2-4, applicants respectfully submit that the Office Action fails to note or address what is specifically recited in each of the claims. The Office Action provides only the following statement in support of its rejection of claims 2-4:

**“As to claims 2, 3, 4, they are apparatus claims of claim 1; therefore, they are rejected for the same reasons as claim 1. In additional, Lee teaches receive return value associate with providing access/ providing a location/ applied to (para [0032], In 1-1 5).”**

(Office Action, Page 4, Third Paragraph; emphasis in bold original). With great respect, applicants assert that the Office Action failed to recognize the different recitations made by claims 2-4 and, thus, has failed to articulate any basis for rejecting the claims.

In rejecting claim 2, the Office Action fails to show that the cited references teach or suggest “the application programming interface operative to receive a return value from the application, the return value associated with providing access to the data contained within the

XML element” as recited in claim 2 as originally presented. Applicants have amended claim 2 to clarify these distinguishing limitations:

2. (Currently Amended) A computer-readable storage media storing instructions executable by a computing system for providing a programmable object model for an Extensible Markup Language (XML) capable application, comprising:

an application programming interface for allowing a user to programmatically access the functionality of a software application capable of applying XML functionality to a document, [[:]] the application programming interface comprising:

a message call for ~~controlling access to~~ accessing data contained within an XML element applied to the document; and

the application programming interface operative to receive a return value from the application, the return value associated with providing access to the data contained within the XML element applied to the document;

a schema validation object configured to access an XML schema associated with content of the document to determine if modifying the data XML element is permitted; and

a message interface ~~the application programming interface~~ operative to receive a return value and present a message to the user through the software application indicating when the XML schema does not permit the user to modify the data.

Claim 2 is distinct from claim 1. The Office Action fails to acknowledge – let alone respond to – the limitations that both differentiate claim 2 from claim 1 and distinguish over the cited references. The rejection of claim 2 under 35 U.S.C. § 103(a) must be withdrawn.

Similarly, in rejecting claim 3, the Office Action fails to address how the cited references teach or suggest “the application programming interface operative to receive a return value from the application, the return value associated with providing a location in the document of the XML element applied to the document” as originally recited in claim 3. Applicants have amended claim 3 to clarify these distinguishing limitations:

3. (Currently Amended) A computer-readable storage media storing instructions executable by a computing system for providing a

programmable object model for an Extensible Markup Language (XML) capable application, comprising:

an application programming interface for allowing a user to programmatically access the functionality of a software application capable of applying XML functionality to a document\_[:,:] the application programming interface comprising:

a message call for locating an XML element applied to the document, where an XPath query is passed as a parameter of the message call; and

the application programming interface operative to receive a return value from the application, the return value associated with providing a location in the document of the XML element applied to the document; and

a message interface to present a message to the user through the software application indicating the location in the document of the XML element applied to the document.

Thus, claim 3 is distinct from claim 1. The Office Action fails to acknowledge or respond to the limitations that both differentiate claim 3 from claim 1 and distinguish over the cited references.

The rejection of claim 3 under 35 U.S.C. § 103(a) must be withdrawn.

Finally, in rejecting claim 4, the Office Action fails to address how the cited references teach or suggest “comprising a message call for accessing one or more properties associated with one or more XML elements applied to the document” and “the application programming interface operative to receive a return value from the application, the return value associated with providing the one or more properties associated with one or more XML elements applied to the document” as recited in claim 4 as originally presented. Applicants have amended claim 4 to clarify these distinguishing limitations:

4. (Currently Amended) A computer-readable storage media storing instructions executable by a computing system for providing a programmable object model for an Extensible Markup Language (XML) capable application, comprising:

an application programming interface for allowing a user to programmatically access the functionality of a software application capable of applying XML functionality to a document\_[:,:] the application programming interface comprising:

a message call for accessing one or more properties associated with one or more XML elements applied to the document; and

the application programming interface operative to receive a return value from the application, the return value associated with providing the one or more properties associated with one or more XML elements applied to the document; and

an interface to present to the user through the software application the one or more properties associated with the of the XML element applied to the document and at least one of:

present the one or more properties to the user; and

allow the user to modify the one or more properties.

Thus, claim 4 is distinct from claim 1. The Office Action fails to acknowledge or respond to the limitations that both differentiate claim 4 from claim 1 and distinguish over the cited references.

The rejection of claim 4 under 35 U.S.C. § 103(a) must be withdrawn.

Respectfully, applicants submit that the rejection under 35 U.S.C. § 103(a) of claims 1-4 should be withdrawn. In addition, because the Office Action has failed to address the limitations of claims 2-4 relative to the cited references, at the very least, applicants request that the Examiner respond to these claims in a non-final office action. Respectfully, the amendments made cannot be considered to necessitate a final rejection when, in fact, no art rejection has been presented regarding claims 2-4. In any case, applicants submit that claims 1-4 are in condition for allowance, and a notice of allowance is humbly requested.

#### **Rejections of Claims 5-7 under 35 U.S.C. § 102**

Claims 5-7 were rejected as being anticipated under 35 U.S.C. § 102(e) over U.S. Patent No. 6,643,633 to Chau et al. (hereinafter "Chau"). Applicants respectfully traverse the rejections. Applicants have amended claim 5 to clarify the distinctions between claim 5 and the cited reference.

Claim 5 is patentable over Chau for at least two general reasons. First, applicants respectfully ask the Examiner to consider the fact that Chau and claim 5 are directed to entirely different subject matter. Chau is directed to storing XML documents in relational database tables: "an XML document containing XML data is received. A document access definition that identifies one or more relational tables and columns is received. The XML data is mapped from the application [document type definition] to the relational tables and columns." (Chau, Column 3, Lines 24-28). Respectfully, whatever words and passages the Office Action may cite as teaching the limitations from the claims are taken totally out of context; in teaching how to store XML documents into the rows and columns of a relational database table, Chau does not and cannot teach what is recited in claim 5.

Second, in amending claim 5 to clarify its limitations as previously explained with regard to claims 1-4, it is even more evident that Chau does not teach all of the limitations included in claim 5 as amended. Claim 5 as amended is reproduced below for the convenience of the Examiner:

5. (Currently Amended) A method for programmatically accessing the functionality of an Extensible Markup Language (XML) capable software application, comprising:

accessing a document, the document being configured to include one or more XML elements;

calling ~~a~~ the software application via an object-oriented message call; passing an object property to the software application, the object property being associated with XML functionality of the software application; and

in response to the message call and the object property passed to the software application, receiving access to the XML functionality of the software application associated with the object property passed to the software application, the XML functionality including a plurality of functions, each of the functions being selectively accessed based on at least one of the message call and the object property, the functions including:

validating data included in the one or more XML elements according to an XML schema associated with the document;



determining if the data in the one or more XML elements is modifiable according to the XML schema;  
identifying a location of the one or more XML elements in the document; and  
presenting one or more properties applied to the data by the XML schema, allowing the user to at least one of view and modify the one or more properties; and  
presenting an interface to the user allowing the user to engage the XML functionality.

Chau fails to each or suggest all of the limitations recited in claim 5 as amended. In particular, claim 5 recites a method including functions for “validating data,” “determining if the data included in the one or more XML elements is modifiable,” “identifying a location of the one or more XML elements in the document,” and “presenting one or more properties applied to the data by the XML schema, allowing the user to at least one of view and modify the one or more properties.” Chau fails to teach any of these limitations, let alone all of these limitations, and thus Chau fails to anticipate claim 5. Applicants request that the rejection under 35 U.S.C. § 102(e) be withdrawn against claim 5, and submit that claim 5 is in condition for allowance.

Claims 6-41 depend from and apply additional limitations to claim 5 and, thus, claims 6-41 are patentable for at least the same reasons for which claim 5 is patentable. Accordingly, applicants request that the rejections of claims 6-7 under 35 U.S.C. § 102(e) and claims 8-41 under 35 U.S.C. § 103(a) be withdrawn against the claims. Applicants submit that claims 6-41, therefore, also are in condition for allowance.

**CONCLUSION**

In view of the foregoing amendments and remarks, all pending claims are believed to be allowable and the application is in condition for allowance. Therefore, a Notice of Allowance is respectfully requested. Should the Examiner have any further issues regarding this application, the Examiner is requested to contact the undersigned attorney for the applicants at the telephone number provided below.

Respectfully submitted,

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